Qn. Booklet No: | 22011 | **Roll Number:**

INSTRUCTIONS TO CANDIDATES

1. Fill in the OMR sheet carefully as per the instructions given on the back of the OMR Sheet / Admit Card. OMR sheet not correctly filled in will not be valued.

2. Write your Roll Number (all eight digits) and Version as **A** on the Question Booklet and on the left hand side of the OMR sheet (basic data part).

3. The examination consists of 100 Objective type multiple choice questions, which are to be answered in 100 minutes.

4. After opening the Question Booklet ensure that there are 100 Questions and that the printing of all the questions are legible. If there are any missing or illegibly printed questions, the matter may be reported to the Invigilator immediately.

5. There are 4 options (A, B, C & D) for each objective type question. Mark the most appropriate answer to each question by blackening fully the corresponding bubble in the OMR sheet with a black/blue ink ball point pen. **For every correct answer 1 mark will be awarded. No deduction of mark will be made for incorrect answer and unanswered questions.** Marking of more than one bubble against a question number in the OMR sheet shall be considered as an incorrect answer. Erasing, overwriting, partial marking, etc. shall also be treated as incorrect answer.

6. Rough work and calculations can be made in the blank pages attached to the question booklet. Watch, Calculator, Mobile phone, Electronic instruments etc. shall not be allowed in the examination hall.

7. The OMR Sheet and the Hall Ticket should be returned to the Invigilator. The Counterfoil of the Hall Ticket and Question Booklet and candidates copy of the OMR answer sheet can be retained by the candidate after the examination.

8. Answer keys will be published in the website www.lbscentre.kerala.gov.in after the examination. Complaints, if any, from the candidates regarding the questions, responses / probable answer may be sent to the Email id ddcc.lbs@kerala.gov.in before 5.00 p.m. within three calendar days from the date of publication of the answer keys. Complaints not substantiated with supporting documents will not be considered. However the decision of the experts regarding such complaints on the answer keys shall be final.

9. The Answer sheet of candidates who indulge in malpractice in any form shall not be valued.

10. The candidates will be allowed to leave the hall only after the completion of the examination time and after handing over the Answer sheet to the Invigilator.

———————

1.   ------- became famous for the law related to the magnitude of heat due to current.
        A)   Prescott Joule   B)   James watt
        C)   Hans Christian Oersted   D)   Michael Faraday

2.   Which one of the following does **not** take place when a person is affected by electric shock?
        A)   The body temperature of the victim decreases
        B)   Viscosity of the blood decreases
        C)   Body muscles contract
        D)   Clotting of blood takes place

3.   There will be 6.022 X 10^{23} carbon atoms in -------- gm of carbon.
        A)   16   B)   8   C)   6   D)   12

4.   The first organic compound that was prepared in a laboratory:
        A)   Chloroform B)   Glycerol   C)   Urea   D)   Glucose

5.   The gland of the human body which secretes the hormone glucagon:
        A)   Pancreas   B)   Pituitary gland
        C)   Gonads   D)   Adrenal Gland

6.   Irregular movement of muscles in human beings takes place due to --------.
        A)   Epilepsy   B)   Parkinson's disease
        C)   Alzheimer's disease   D)   Asthma

7.   Article 51A of the Constitution of India pertains to ---------.
        A)   Qualifications for election as the President of India
        B)   Fundamental duties of Citizens
        C)   Protection of Human Rights
        D)   Life and Personal Liberty of Citizens

8.   Yanam was under the Rule of -------- Government before 1954.
        A)   Portuguese B)   British   C)   Dutch   D)   French

9.   What is the time required for the Earth to complete the rotation of 1^0 longitude?
        A)   4 minutes   B)   8 minutes   C)   60 minutes D)   1440 minutes

10.   The hot wind blowing in the north Indian Plain:
        A)   Doctor   B)   Mango showers
        C)   Loo   D)   Chinook

11.   The country which produces the largest amount of Rare Earths in the world:
        A)   Russia   B)   India   C)   Brazil   D)   China

12. The ministry in the Union Government implementing the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS):
A) Labour
B) Rural development
C) Finance
D) Human resource Development

13. On which day Mother's Day is celebrated in India?
A) The second Sunday of May
B) The first Sunday of May
C) The last Sunday of April
D) The first Sunday of April

14. Kandy, Vavuniya and Batticaloa are major cities in --------.
A) Bangladesh   B) Nepal   C) Sri Lanka   D) Bhutan

15. Who is the present President of Ukraine?
A) Vahagn Khachaturyan   B) Rumen Radev
C) Zoran Milanovic   D) Volodymyr Zelenskyy

16. The famous Indian musician who popularized the stringed instrument Santoor:
A) Hariprasad Chaurasia   B) Shiv Kumar Sharma
C) Amjad Ali Khan   D) Pandit Ravi Shankar

17. The Brita dance is a traditional folk dance of:
A) West Bengal   B) Karnataka   C) Assam   D) Rajasthan

18. Brihadeswara temple is located in:
A) Karnataka   B) Andhra Pradesh
C) Tamil Nadu   D) Maharashtra

19. Gond tribe belongs to ------India.
A) Central   B) South   C) Northeast   D) East

20. Who invented the USB (Universal Serial Bus)?
A) Sam Pitroda   B) Bill Gates
C) Ajay V. Bhatt   D) Mark Zuckerberg

21. Who first measured the circumference of the Earth?
A) Plato   B) Galileo   C) Ptolemy   D) Eratosthenes

22. Find the mis- match?
A) Germ theory   –   Louis Pasteur
B) Virus   –   Martinus Beigerinick
C) Continental Drift   –   Alfred Wegener
D) Periodic table   –   Gregor Mendel

2

A

23. Find the correct match of book and author?
    A) Pathummayude Adu   –   Benyamin
    B) Oru Sankeerthanam Pole –   Perumbadavam Sreedharan
    C) Aadu Jeevitham   –   Vaikom Muhammad Basheer
    D) Yanthram   –   Padmarajan

24. Who among the following is **not** a Jnanpith Award recipient?
    A) Akkitham Narayanan   B) Amitav Ghosh
    C) Chandrasekhara Kambara D) O. N. V. Kurup

25. 'Arthashastra' was written by:
    A) Vishnu Sharma   B) Premchand
    C) Kautilya   D) Kalidasa

26. Which among the following is **not** considered as an air pollutant?
    A) Nitrogen dioxide   B) Carbon dioxide
    C) Sulphur dioxide   D) Lead

27. The most abundant metal in the crust of the Earth:
    A) Mg   B) Fe   C) Si   D) Al

28. Who among the following is a Squash player from India?
    A) Mithali Raj   B) P. C. Thulasi
    C) Deepika Pallikal   D) Aditi Ashok

29. Kerala won the Santhosh trophy for the first time in:
    A) 1973- 74   B) 1991- 92   C) 1982- 83   D) 1976- 77

30. The captain of the India Men's hockey team which won the bronze medal at Tokyo Olympics in 2021:
    A) Bharat Chettri   B) P. R. Sreejesh
    C) Manpreet Singh   D) Pargat Singh

31. The ages of Anu and Binu are in the ratio 5 : 7. Four years hence their ages will be in the ratio 3 : 4. Their present ages are respectively:
    A) 10 , 14   B) 15 , 21   C) 20 , 28   D) 30 , 42

32. A student scored 40 per cent marks in an examination and failed by 4 marks. Another student scored 60 per cent marks in the same examination and had 6 marks more than the pass mark. Then the pass mark is:
    A) 24   B) 44   C) 64   D) 84

33. How long will it take to earn a simple interest of Rupees 180 on Rupees 2000 at 6 per cent per annum?
    A) 15 months   B) 16 months   C) 18 months   D) 21 months

A

34. The ratio of the area of a square to that of a square drawn on its diagonal is:
A) 1 : 1   B) 1 : $\sqrt{2}$ C) 1 : 4   D) 1 : 2

35. In an examination 48 percent of the total number of candidates passed the Mathematics test and 58 percent of the total number passed the English test. What percent of the total number failed both tests if 30 percent passed both tests?
A) 46   B) 44   C) 34   D) 24

36. The average age of a man and his son is 18 years. If the ratio of their ages is 5 : 1, what will be the ratio after 6 years?
A) 10 : 3   B) 5 : 2   C) 4 : 3   D) 3 : 1

37. A sum of money is divided among A, B, C and D in the ratio 3 : 7 : 9 : 13. If B's share is ₹4872, what is the total share (in Rupees) of C and D?
A) 15312   B) 15321   C) 13512   D) 13125

38. What per cent above the cost price should an article be marked so that 20 percent may be gained even after allowing a discount of 20 per cent?
A) 20   B) 25   C) 40   D) 50

39. The costs of a table and a chair are in the ratio 5 : 7. If they be increased by 20 percent and 10 percent respectively, what is the new ratio?
A) 60 : 77   B) 16 : 17   C) 66 : 70   D) 6 : 7

40. Two trains are running in opposite directions at the same speed. If each train is of length 120 metres and they cross each other in 12 seconds, then the speed of each train in km/hour is:
A) 10   B) 18   C) 36   D) 72

41. A man travels from home to his office at a speed of 6 km/hour and returns home at a speed of 10 km/hour. If he takes 10 hours in all, what is the total distance travelled?
A) 50 km   B) 75 km   C) 100 km   D) 150 km

42. A reduction of 20 per cent in the price of apples enables a man to buy 2 kg. more of apples for ₹ 120. What was the price of a kg. of apples before reduction?
A) ₹10   B) ₹ 12   C) ₹15   D) ₹ 20

43. The average age of a group of 8 women was increased by 2 years when two of them, each aged 22, were replaced by two men. What is the average age of the two men?
A) 24 yrs   B) 26 yrs   C) 28 yrs   D) 30 yrs

44. A sum of ₹950 amounts to ₹ 1064 in two years at simple interest. What would be the amount if the interest was reduced by 2 percent?
A) ₹1013   B) ₹1026   C) ₹ 1032   D) ₹ 1045

A

45. The speed of a boat in still water is 20 km/hour. If the speed of the stream is 5 km/hour, what is the speed of the boat downstream?

A) 25 km/hour   B) 22 km/hour   C) 20 km/hour   D) 18 km/hour

46. The ratio of the speed of two trains, one running at the rate of 45 km/hour and the other running at the rate of 20 metres/second is:

A) 3 : 5   B) 5 : 3   C) 5 : 8   D) 8 : 5

47. During a 6-day class, the average attendance for the first four days was 200 and that during the last three days was 220. If the average attendance for the six days was 210, what was the attendance on the fourth day?

A) 200   B) 210   C) 212   D) 220

48. The age of a father10 years ago was thrice the age of his son 10 years hence, the fathers age will be twice that of his son. The ratio of their percentages is;

A) 5 : 2   B) 7 : 3   C) 9 : 5   D) 8 : 5

49. Find the missing number in the series:
25, 50, 30, 45, 35, 40, ---

A) 30   B) 35   C) 40   D) 45

50. Find out the wrong number in the series:
3, 7, 15, 27, 63, 127, 255

A) 7   B) 27   C) 15   D) 63

Read the following passage and find out the answers to the questions 51 - 56:

The Antarctic is the most remote continent and the last to be discovered but it constitutes about a tenth of the world's land surface. It is also the only continent without an indigenous human population.

In the past it had a warm climate supporting luxuriant vegetation and large animals, but the climate deteriorated over the last 30 million years, once the great continent Gondwana had drifted apart sufficiently for a circumpolar current to become established. This, the largest ocean current in the world, cut off Antarctica from the warmer oceans to the north and allowed the ice sheets, in places over four kilometres thick, to develop.

This region is the earth's major heat sink and contains ninety percent of the world's ice and nearly three-quarters of its fresh water. Only two percentage of the continent is not covered by ice and life retains a tenuous foothold there.

Nearly half of line is hidden by thick floating ice shelves or glaciers and the rest is scoured by iceberg down to the depth of 15 metres or more which limits coastal life. But below this level where water temperatures are same there is a colourful marine world containing a great diversity of life. The southern ocean makes up a tenth of the world ocean, and the expansion and contraction of the surrounding sea ice is the largest seasonal process on Earth. Recent work has shown that the pack ice provides a surprisingly productive winter habitat for a number of small creatures, the most important of them being krill.

5

A

51. Which of the following statements is **not** true about Antarctica?
   A) It is a far off continent.
   B) It does not have permanent human habitation.
   C) It has a warm climate.
   D) Once it had vegetation and animals.

52. Antarctica was separated from the warmer oceans by:
   A) Ocean current
   B) Luxuriant vegetation
   C) Gondwana
   D) Large animals

53. What portion of the world's fresh water does the continent contain?
   A) Two percent
   B) Ninety percent
   C) Three quarters.
   D) Fifty percent

54. Which of the words in the passage is opposite in meaning to the word 'strong?'
   A) Luxuriant
   B) Tenuous
   C) Deteriorated
   D) Scoured

55. Area of the continent where life is present:
   A) Two percent
   B) Half of the earth
   C) Three percent
   D) A tenth of the world's surface

56. Meaning of the word 'indigenous' given in the passage is:
   A) Heterogeneous
   B) Homogeneous
   C) Comfortable
   D) Native

57. I lost ----- umbrella you gave me the other day. Find the suitable article
   A) an   B) a   C) the   D) No article

58. We have not used that road for several years. The passive form of the sentence is:
   A) That road has not been used for several years.
   B) That road was not used by us for several years.
   C) That road had not been used for several years.
   D) That road is not used by us for several years.

59. Meaning of the idiom 'hands down:'
   A) Comfortably   B) Tediously   C) Enviously   D) Effortlessly

60. Pick out the grammatically correct sentence:
   A) Tell me when are you ready.
   B) Neither his character nor his activities has been appreciated.
   C) He has no knowledge of and interest in Science.
   D) The boy insisted to buy a kite for him.

61. Cruelty to animals ------ seriously looked upon by the society nowadays
   A) are   B) is   C) has   D) have

6

A

62. Ramesh ------ to be back at work tomorrow.
    A) expected   B) expects
    C) has expected   D) will expect

63. It was careless ------ him to leave the door unlocked.
    A) with   B) of   C) on   D) about

64. Hundreds of civilians had been ----- in the face of the mounting war.
    A) replaced   B) revamped   C) vacated   D) evacuated

65. Would you like to have------sugar in your tea?
    A) a few more   B) few
    C) fewer   D) a little more

66. Pick out the part of the following sentence that contains an error.
    We would come/ to receive you,/ if we had known /you were coming.
    A) we would come   B) to receive you
    C) if we had known   D) you were coming

67. She was ------by the false promise he had made to her. Choose the correct phrase.
    A) taken over   B) taken up
    C) taken in   D) taken down

68. ' The new generation courses that received the nod from the Higher Education Department will commence from this academic year.' The sentence is an example of:
    A) Complex sentence   B) Compound sentence
    C) Simple sentence   D) Compound complex sentence

69. A swarm of flies; A herd of elephants; A -------- of thieves?
    A) Group   B) Team   C) Batch   D) Gang

70. He asks me, 'Can I use your phone?' The question may be reported as:
    A) He asked me whether he can use my phone.
    B) He asks me whether he can use my phone.
    C) He asked me whether I can use your phone.
    D) He asked me if he could use my phone.

71. Find out the total number of surfaces of the solid in the given figure.
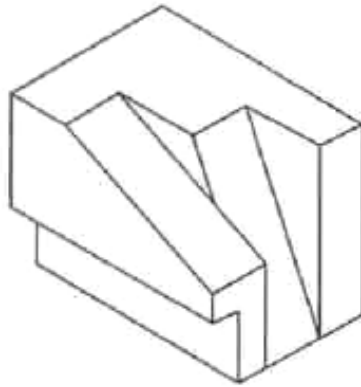
A)   12   B)   14   C)   10   D)   13

72   Find out the total number of parallelograms in the given figures.
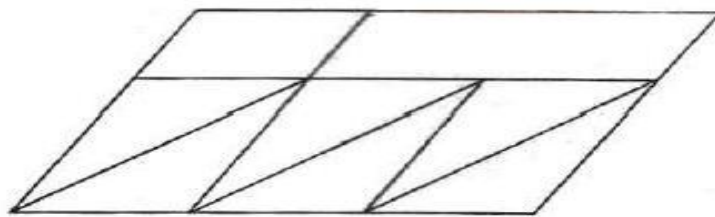
A)   12   B)   16
C)   20   D)   None of these

73.   The dimension of a standard A4 paper is:

A)   20cm x 24cm   B)   18cm x 26cm
C)   21cm x 29.7cm   D)   20cm x 28.6cm

74.   Find out the total number of triangles in the given figure.

A)   15   B)   14   C)   12   D)   10

A
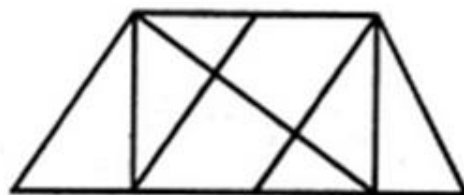
75. In the given diagram O is the centre of the circle and CD is a tangent. ∠CAB and

∠ACD are supplementary to each other ∠OAC = 30°. Find the value of ∠OCB.
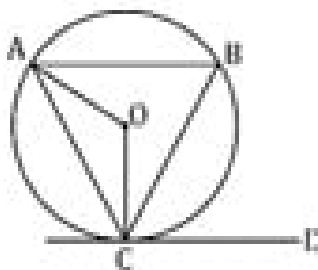
A) 30^0 B) 60^0 C) 45^0 D) 90^0

76. ABCDE is a regular pentagon. O is a point inside the pentagon such that AOB is an equilateral triangle. What is ∠OEA?

A) 108^0 B) 60^0 C) 72^0 D) 54^0
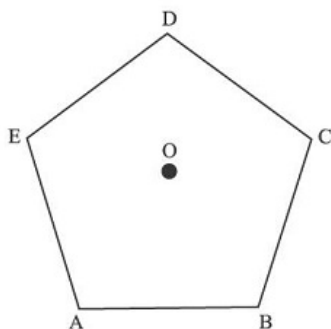
77. How many faces does an icosahedron have?

A)   12   B)   16   C)   20   D)   18

9

A

78.   What is the volume of the cube in the figure below?

5 cm
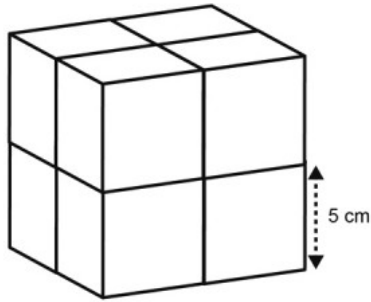
A)   1000 cm^3 B)   625 cm^3 C)   725 cm^3 D)   750 cm^3

79.   What is the perimeter of ABC in the below given shape?

6 cm   C

8.5 cm

A

B
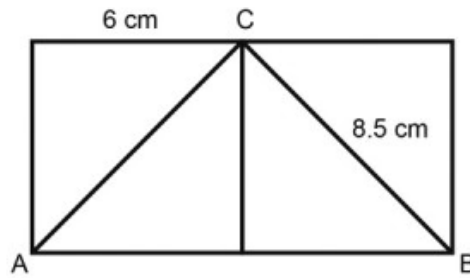
A)   26cm   B)   25cm   C)   29cm   D)   30cm

80.   The following images show how a paper has been folded and punched in the end.
        Choose the correct pattern when it is open.
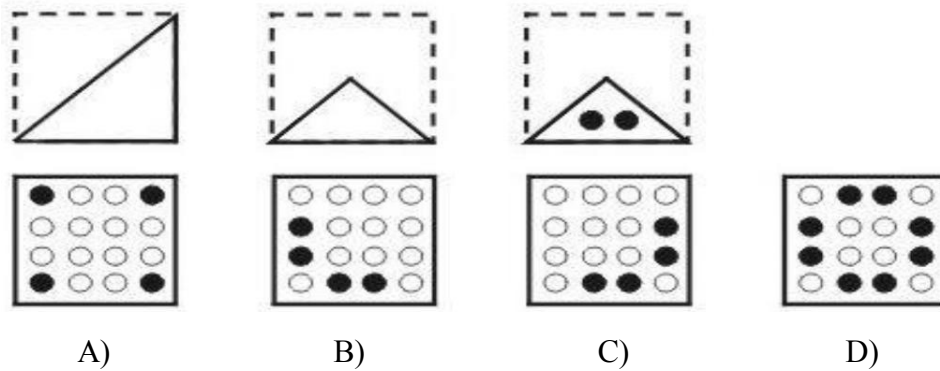
A)   B)   C)   D)

81. Identify the correct top view of the given figure.
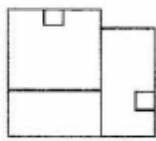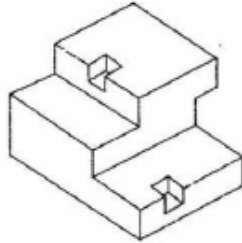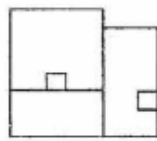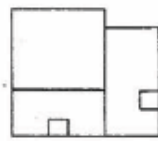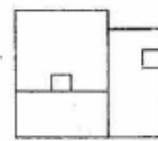
A)   B)   C)   D)

82. Identify the correct view of the given object from the side indicated by arrow:
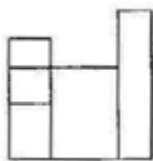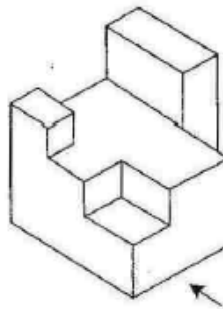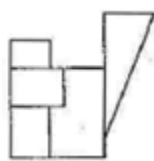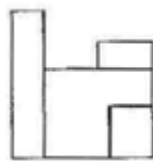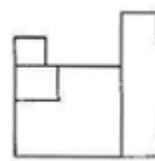
A)   B)   C)   D)

83. Identify the correct view of the given object from the side indicated by arrow:
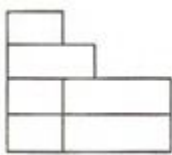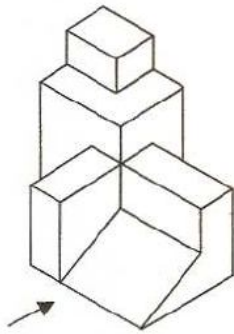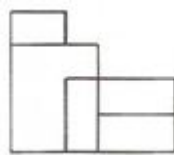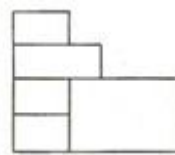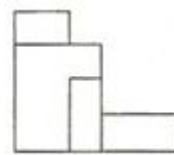
A)   B)   C)   D)

84. Identify the correct shapes from the given figures from which the problem figure can be developed.
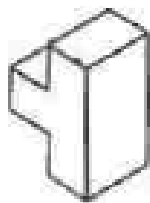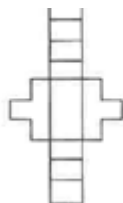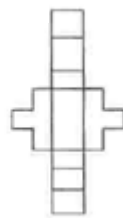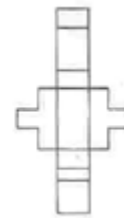
A)   B)   C)   D)

85. Identify the correct shapes from the given figures from which the problem figure can be developed.
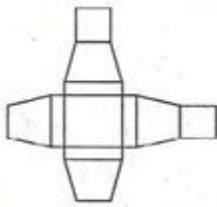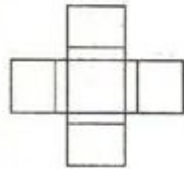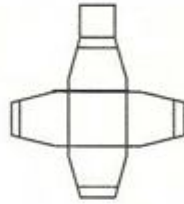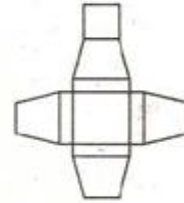
A)   B)   C)   D)

86. Find the exact mirror image of the question figures with respect to the X-X axis shown.
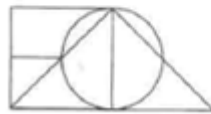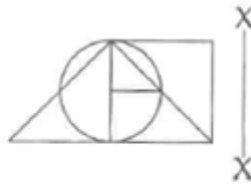
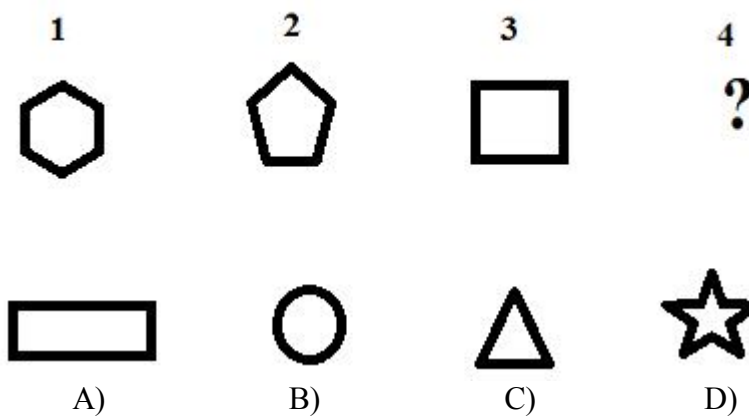A)   B)   C)   D)

87. Find the exact mirror image of the question figures with respect to the X-X axis shown.

A)   B)   C)   D)

A
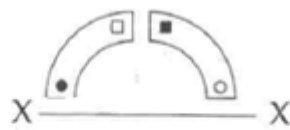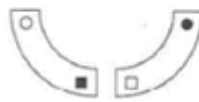
88.   Which figure is identical to the figure (I)?

fig.(I)

A)   B)   C)   D)
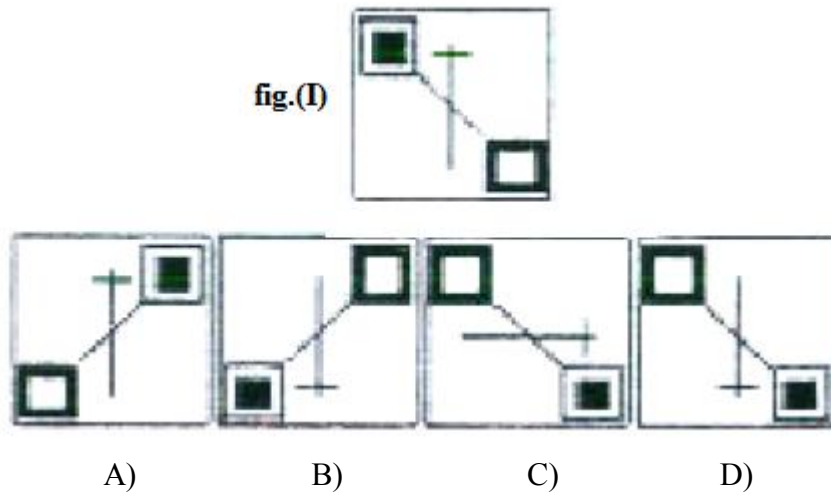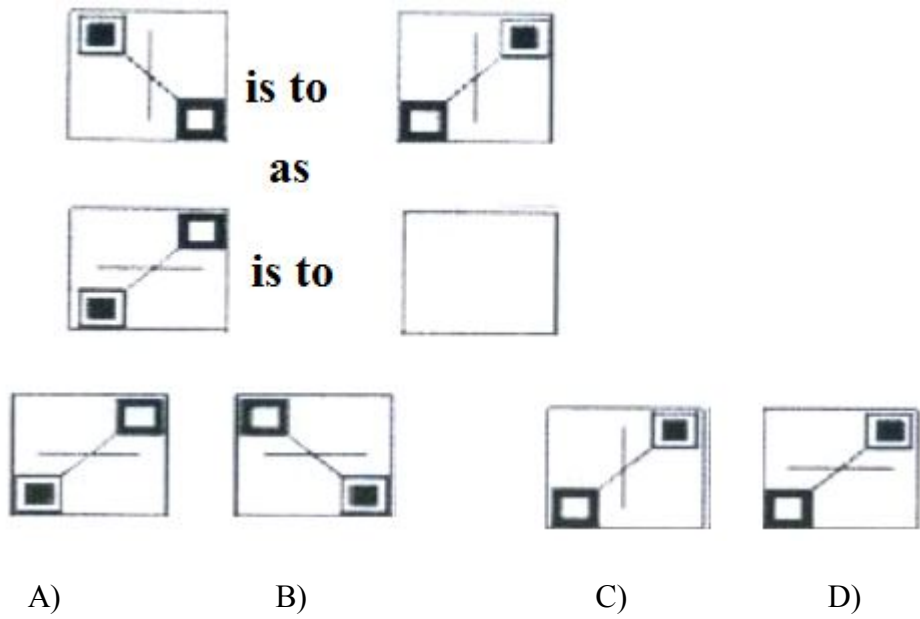
89.   Which figure is identical to the figure (I)?

fig.(I)

A)   B)   C)   D)
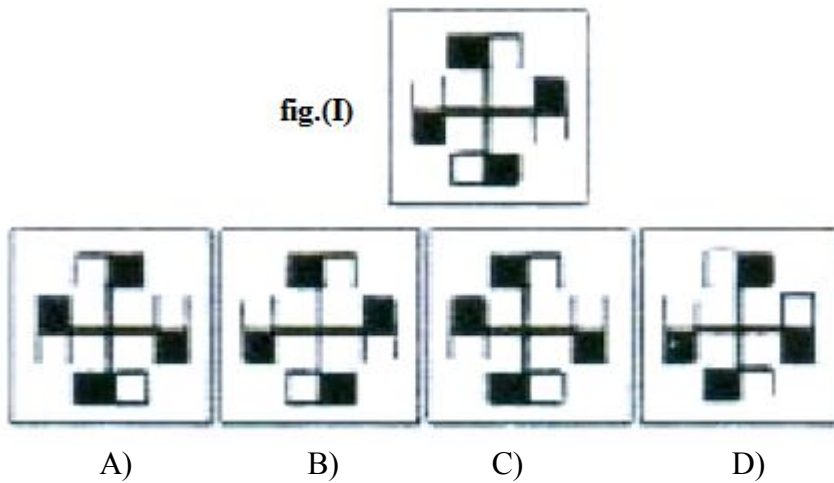
90.   Which figure is the fourth in the sequence?

1   2   3   4

?

A)   B)   C)   D)

14

A

91. Which figure is the fifth in the sequence?
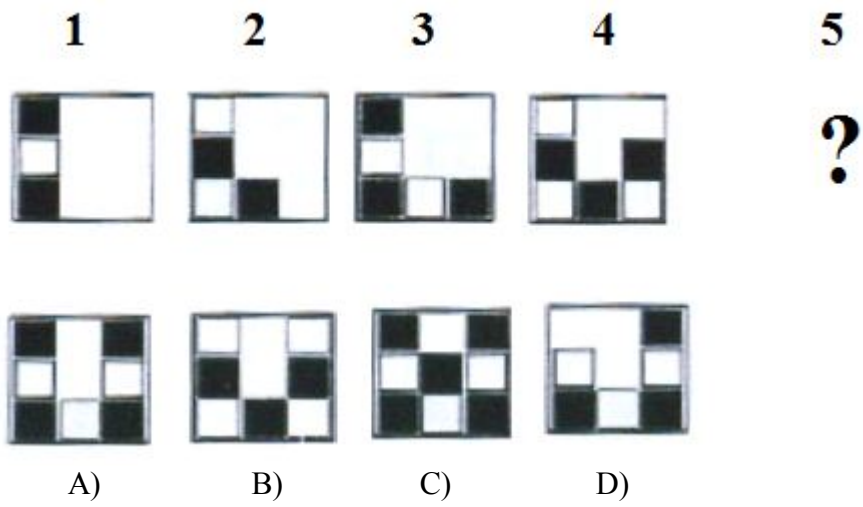
1	2	3	4	5

?

A)   B)   C)   D)

92. Which figure completes the statement?

is to

as

is to

A)   B)   C)   D)

93. Which figure completes the statement?

is to

as

is to
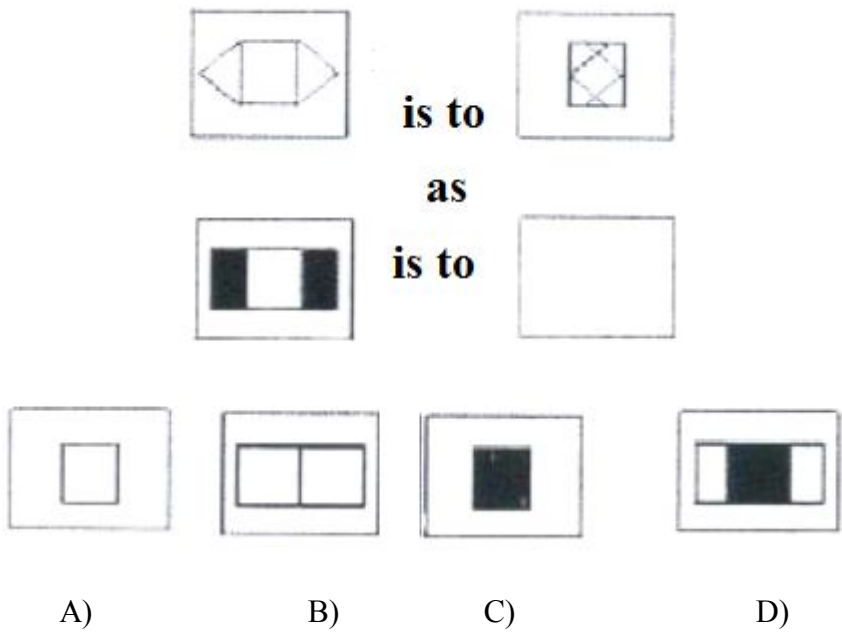
A)   B)   C)   D)

94. Find the odd figure out.
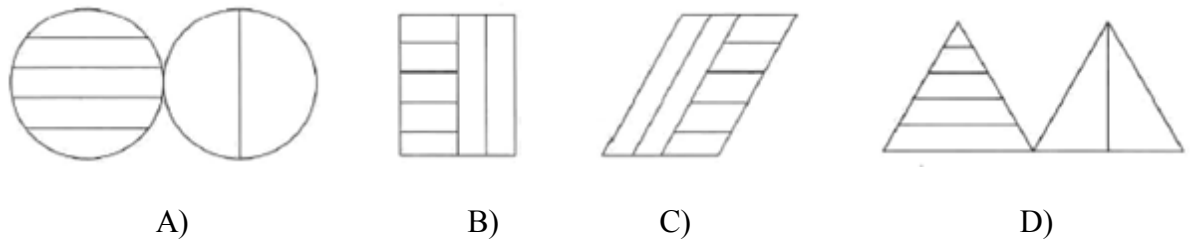
A)   B)   C)   D)

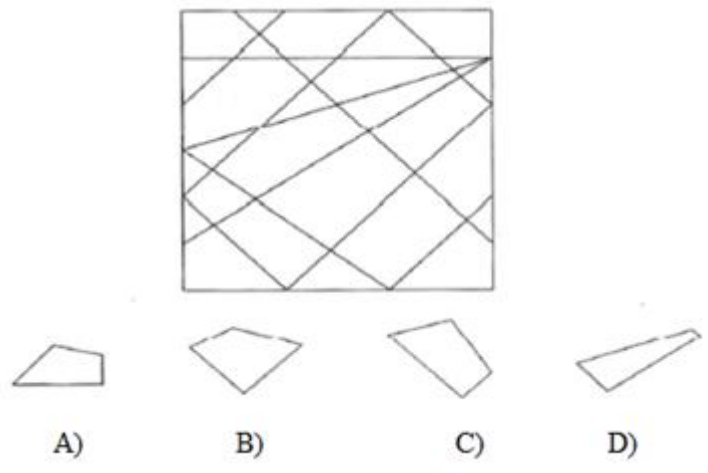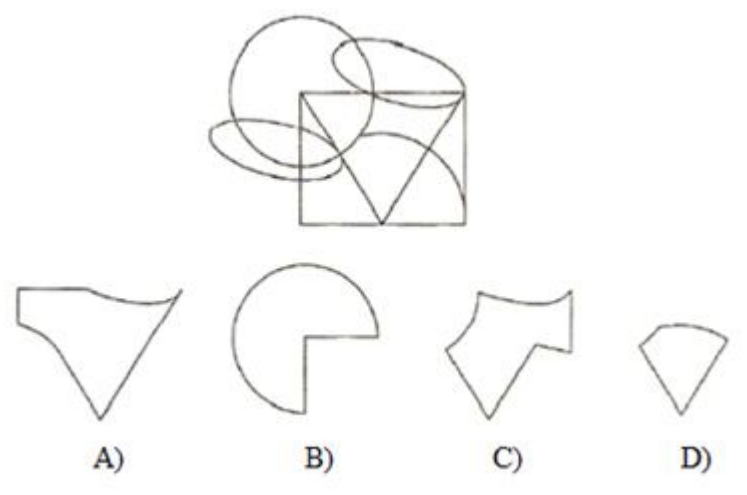95. Find the odd figure out.
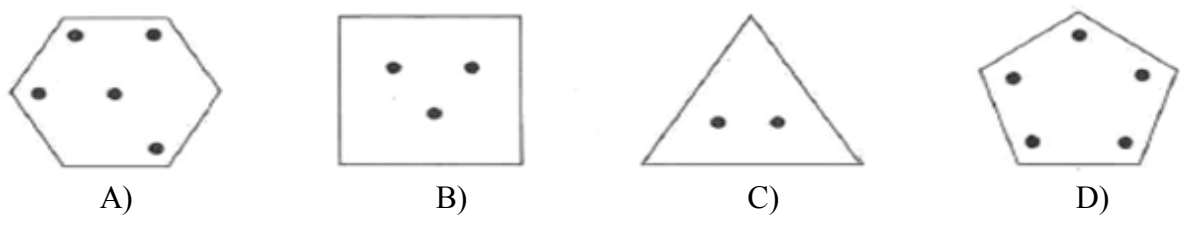
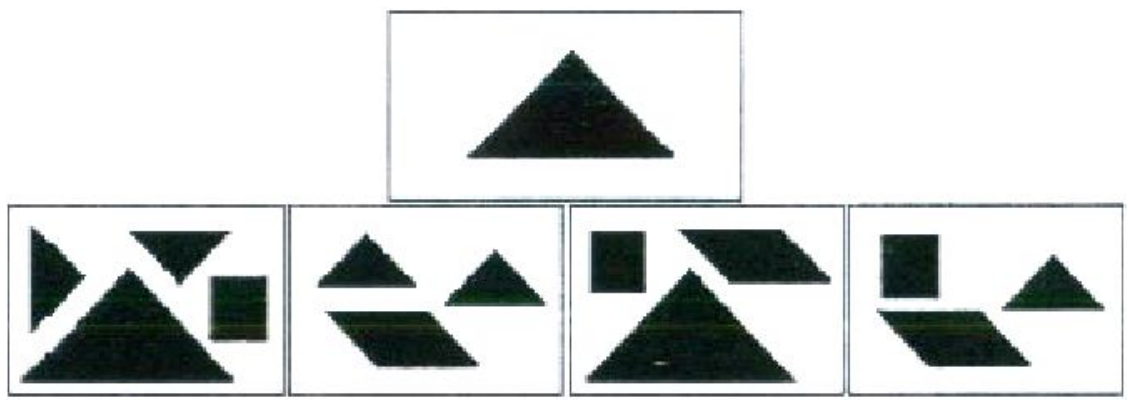A)   B)   C)   D)

96.   Find out the shape which is hidden in the given figure.

A)   B)   C)   D)

97.   Find out the shape which is **not** hidden in the given figure.

A)   B)   C)   D)
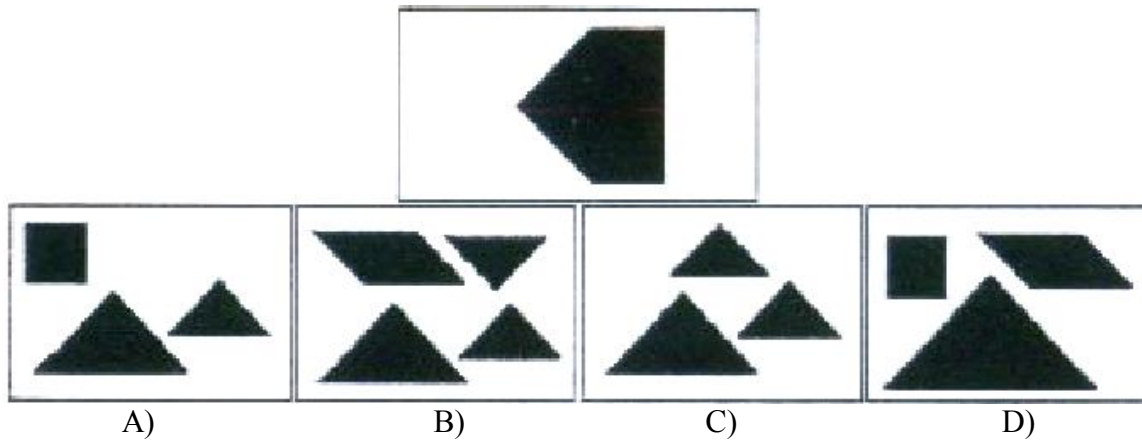
98.   Which group of shapes can be assembled to make the shape shown?

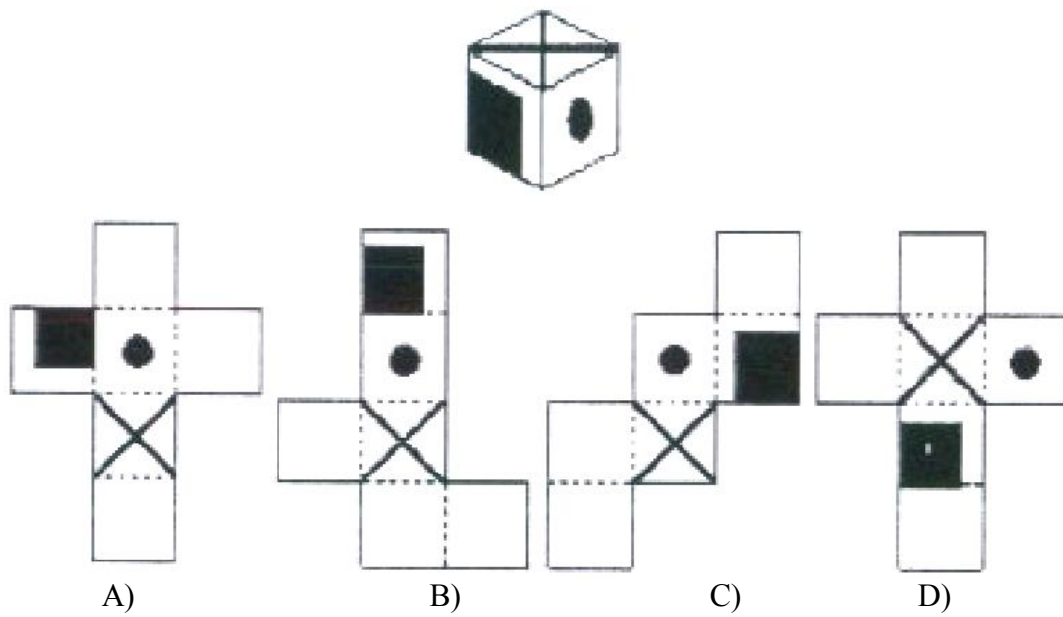A)   B)   C)   D)

99. Which group of shapes can be assembled to make the shape shown?

A)

B)

C)

D)

100. Which pattern can be folded to make the cube shown?

A)

B)

C)

D)

****

1. The architect who designed the new Parliament building of India:
   A) B V Doshi
   B) Bimal Patel
   C) Raj Rewal
   D) Bijoy Jains

2. Mundra Port is situated 1n:
   A) Odisha
   B) Gujarat
   C) Karnataka
   D) West Bengal

3. The first National Institute of Design was established in 1961 at:
   A) Jorhat
   B) Kurukshetra
   C) Ahmadabad
   D) Bhopal

4. The oldest Malayalam newspaper which is now in circulation:
   A) Malayala Manorama
   B) Mathrubhumi
   C) Kerala Kaumudi
   D) Deepika

5. Papua New Guinea is an island nation in the ------- ocean.
   A) Pacific
   B) Indian
   C) Atlantic
   D) Arctic

6. The French born American who is known as the 'Father of Industrial Design'?
   A) Ralph Lauren
   B) Tom Ford
   C) Ivan Sutherland
   D) Raymond Loewy

7. The first Indian Satellite was launched in:
   A) 1979
   B) 1981
   C) 1972
   D) 1975

8. The easternmost state of India
   A) Nagaland
   B) West Bengal
   C) Arunachal Pradesh
   D) Mizoram

9. Find the correct match of the Social Welfare Scheme and Beneficiaries of the Government of Kerala:
   A) Vayomitram Project – Destitute Widows
   B) Niramaya Health Insurance Scheme – Differently Abled
   C) Abhayakiranam – Transgenders
   D) Samanwaya – Senior Citizens

10. Mattannoor Sankarankutty is a well-known -------- artist.
    A) Kathakali
    B) Chenda
    C) Ottanthullal
    D) Chakyarkoothu

11. Which country will be hosting the 2028 Summer Olympics?
    A) France   B) United States of America
    C) Australia   D) United Arab Emirates

12. Which one of the following is **not** true about electromagnetic wave?
    A) It is a combined form of electric field and magnetic field
    B) A medium is essential for its propagation
    C) Radio wave is a type of electromagnetic wave
    D) It is transverse in nature

13. Among the following which one has the highest approximate density at normal temperature and pressure conditions?
    A) Coconut oil B) Water   C) Saline water D) Kerosene

14. The metal which is separated by electrolysis:
    A) Silver   B) Copper   C) Tin   D) Aluminium

15. The Law of Conservation of Mass was given by:
    A) Lavoisier   B) Joseph Proust
    C) John Dalton   D) Rutherford

16. The Part of the Constitution of India related to the fundamental duties of its citizens:
    A) Part IV   B) Part VI   C) Part V   D) Part III

17. A blood clot in the human body is mainly made up of:
    A) Platelets, Thrombin
    B) Red Blood Cells, Platelets
    C) Red Blood Cells, White Blood cells, Fibrin fibres
    D) Red Blood Cells, Platelets, Fibrin fibres

18. An MRI (Magnetic Resonance Imaging) Scanner is used to get the:
    A) Record of electric waves in the brain
    B) Record of electric waves in the heart muscle
    C) Three-dimensional visuals of internal organs
    D) The structure of internal organs using sound waves

19. Who among the following was **not** a founding member of the Deccan Education Society?
    A) Gopalakrishna Gokhale   B) Bal Gangadhar Tilak
    C) G G Agarkar   D) Mahadev Govinda Ranade

20. The process of horizontal transfer of heat through wind in the atmosphere?
    A) Terrestrial radiation   B) Conduction
    C) Advection   D) Convection

21. Ozone layer is located in:
    A) Stratosphere   B) Ionosphere
    C) Troposphere   D) Asthenosphere

22. A radioactive mineral found in the beach sands of Kerala:
    A) Ilmenite   B) Monazite   C) Sillimanite   D) Rutile

23. Which among the following is **not** true about Aadhaar Card of the Government of India?
    A) A 12-digit unique identity for every Indian individual, including children and infants
    B) Each individual will be given a single unique Aadhaar ID number
    C) Establishes uniqueness of every individual on the basis of demographic and biometric information
    D) Mandatory for every Indian resident who has identification documents

24. The World Environment Day theme for 2022 was:
    A) Forests – Nature At Your Service
    B) Beat Air Pollution
    C) #Beat Plastic Pollution
    D) Only One Earth

25. Serbia, Croatia, Slovenia and Bosnia were part of the erstwhile ----.
    A) USSR   B) Czechoslovakia
    C) Yugoslavia   D) Hungary

26. Present Union Minister of Commerce and Industry Government of India:
    A) Kiran Rijiju   B) Anurag Thakur
    C) Piyush Goyal   D) Narayan Rane

27. The present Governor of Reserve Bank of India is:
    A) Rajiv Kumar   B) Praveen Kumar Shrivastava
    C) Shaktikanta Das   D) Urjit Patel

28. The first constitution literate district in India:
    A) Kollam   B) Kota   C) Kohima   D) Kolhapur

29. Ajanta caves are located in the state of:
    A) Jharkhand   B) Maharashtra   C) Rajasthan   D) Karnataka

30. Thalakkal Chandu was the leader of:
    A) Kurumans   B) Irulars   C) Kurichias   D) Kanikkars

31. Add suitable article to the sentence:
It was ---- unanimous decision.
A) A B) An C) The D) No article

32. Use the correct preposition in the following sentence:
Take the book---- the table.
A) of B) on C) off D) at

33. Choose the suitable phrasal verb to complete the sentence:
They ----- their boots and overcoats.
A) Put on B) put down C) put up D) put off

34. Pick the word that is spelt correctly:
A) magneficent B) maleficent C) inefficiount D) innecence

35. The word *fervently* means:
A) calm B) apathetic C) frigid D) ardent

36. Which of the following gives the meaning for "to find a common ground?"
A) to differentiate B) to come to an agreement
C) to enumerate D) to discover

37. Identify the word opposite in meaning to 'abridge'
A) curtail B) enlarge
C) cutback D) retrench

38. Add appropriate question tag.
Everyone was happy, ---?
A) wasn't everyone B) wasn't they
C) weren't everyone D) weren't they

39. Spot the reflexive pronoun in the sentence:
They enjoyed themselves during the picnic.
A) They B) Enjoyed C) Themselves D) Picnic

40. Convert the sentence into passive voice:
She was mending socks.
A) Socks were mended by her.
B) Socks was mended by her.
C) Socks were being mended by her.
D) Socks was being mended by her.

23015 A

41. Change the sentence into indirect speech.
"How old is the bride?" father asked.
A)   Father asked how old was the bride.
B)   Father asked how old the bride was.
C)   Father asked how old is the bride.
D)   Father asked how old the bride is.

42. Choose the correct verb form from those given below.
Each of the boys ---- scored good marks.
A)   has   B)   have   C)   were   D)   are

43. Fill in the blank space using the suitable form of verb given below:
We------ (live) in Mumbai since 1990.
A)   live   B)   lived
C)   are living   D)   have been living

44. Identify the error in the underlined sections of the sentence if any.
Many a patriot/ have died/ for the cause. No error.
        1   2   3   4

A)   1   B)   2   C)   3   D)   4

45. Complete the following sentence using the appropriate clause.
No sooner had we heard the noise,------.
A)   we rushed to the spot
B)   we had rushed to the spot
C)   than we rushed to the spot
D)   when we rushed to the spot

46. Fill in the blank space with the most suitable adverb clause given below:
You should work hard----- you should fail.
A)   lest   B)   without   C)   unless   D)   else

For questions (**47-50**), Read the following passage and answer the questions given below:
Patience and the capacity for sustained hard work are qualities essential for success. Anything great can only be achieved by those who possess these qualities. Feverish haste and hurry do not serve any purpose. The great city of Rome was built through the sustained efforts of a succession of great men through the centuries. Similarly, the Taj Mahal is the fruit of the relentless labour of thousands of men over a period of two decades. Great scientists like Newton and Galileo made their discoveries as a result of years of devoted, patient, hard work. The proverb "Rome was not built in a day" is all the more relevant in today's world, where we often see people confused by too much hurry and too many goals.

47. The qualities essential for success are:
    A) Patience
    B) Hard work
    C) Patience and hard work
    D) Efforts

48. Feverish in the passage means:
    A) Suffering from fever
    B) Strong excitement
    C) Quiet
    D) Repose

49. A decade is a period of:
    A) 10 years
    B) 20 years
    C) 100 years
    D) 200 years

50. A person who researches to advance knowledge in an area of natural sciences is a----.
    A) Naturalist
    B) Botanist
    C) Physicist
    D) Scientist

51. The sum of first five prime numbers is:
    A) 17
    B) 11
    C) 28
    D) 18

52. An umbrella is made by stitching 12 triangular pieces in which 6 are of white colour and the other six are of blue colour. Sides of each piece of cloth measuring 40cm, 40cm and 18cm. How much cloth of white colour is required for the umbrella?
    A) $216\sqrt{31}cm^2$
    B) $378\sqrt{31}cm^2$
    C) $384\sqrt{31}cm^2$
    D) $420\sqrt{31}cm^2$

53. When the price of a product was decreased by 20%, the number of products sold increased by 40%. What was the increase on the total revenue?
    A) 12%
    B) 15%
    C) 17%
    D) 18%

54. In a summer camp of students, there was sufficient food for 105 students for 21 days. If 42 students leave the camp, then how long would the food last?
    A) 28 days
    B) 32 days
    C) 35 days
    D) 45 days

55. A family consist of five members B, C, E, F and G. C is the son of G but G is not the mother of C. E and G are married couple. B is the brother of G. F is the daughter of E. Who is the brother-in-law of E?
    A) F
    B) G
    C) B
    D) None of these

56. A game is started with a basket of red and green balls. The number of red balls is 5 more than 3 times the green balls. At each round of the game, 7 green and 15 red balls are removed. After several rounds, there are 3 green and 56 red balls left. How many balls were there in the beginning?
    A) 52
    B) 158
    C) 210
    D) 213

57. In a two-digit number, the unit's digit is 4 more than that of ten's digit. The sum of the digits is 36 less than the number. What is the product of the digits of the number?

  A)   24   B)   28   C)   32   D)   36

58. The positions of the first and last alphabets in the word PRODUCTION are interchanged. Similarly, the positions of the second and second last alphabets are interchanged and so on. Which of the following will be the fourth to the right of the eighth alphabet from the right end after the rearrangement?

  A)   O   B)   D   C)   C   D)   U

59. In a wholesale fruit shop there are two types of grapes. The cost of Type A grapes is ₹ 15 per kg and Type B is ₹ 20 per kg. If both are mixed in the ratio 2:3, then the price of mixed grape per kg is:

  A)   ₹ 17.00   B)   ₹ 18.00   C)   ₹ 18.50   D)   ₹ 19.50

60. The sum of 9th and 11th term of the sequence $\sqrt{2}, \sqrt{10}, 5\sqrt{2}, \ldots$ is:

  A) $3750\sqrt{2}$ B) $3750\sqrt{10}$ C) $16250\sqrt{2}$ D) $16250\sqrt{10}$

61. A clock loses 4 minutes every hour and was set right at 5.00 PM on Wednesday. When does the clock shows the right time again?
  A)   5.00 AM on next Wednesday
  B)   7.00 AM on next Wednesday
  C)   5.00 AM on Thursday of the next week
  D)   5.00 PM on Thursday of the next week

62. In a population of 1200, the number of married couples is as much as the number of singles. What is the number of married persons?
  A)   525   B)   600   C)   750   D)   800

63. Father is aged three times more than his son Ronit. After 8 years, he would be two and a half times of Ronit's age. After further 8 years, how many times would he be of Ronit's age?

  A)   2 times   B)   3 times   C)   4 times   D)   8 times

64. Five men are standing in a row facing towards east. Roy is to the right of Umesh, Shaan and Ajith. Umesh, Shaan and Ajith are to the right of Rahim. Ajith is between Umesh and Shaan. If Shaan is fourth from the left, then what is the position of Umesh from the right?

  A)   First   B)   Second   C)   Third   D)   Fourth

23015 A

65. A woman goes 24 km towards north from a fixed point and then she goes 20 km towards south from there. Then she goes 3 km towards east. How far and in what direction is she from her starting point?
A)   7 km east   B)   5 km west
C)   7 km west   D)   5 km north-east

66. How many even numbers are there in the following number series which are immediately preceded by 6 as well as immediately followed by 3?

665683943673643286 4682663

A)   1   B)   2   C)   3   D)   4

67. From the numbers 5 to 55, the numbers which are divisible by 3 and the numbers which contain 3 as one of the digits are removed. How many numbers will be left after the removal?
A)   22   B)   23   C)   24   D)   25

68. If $a:b = 3:4$ and $b:c = 3:4$, then $\dfrac{a+b+c}{3c}$ is equal to:

A) $\dfrac{1}{2}$ B) $\dfrac{14}{27}$ C) $\dfrac{75}{84}$ D) $\dfrac{37}{48}$

69. Two trains of lengths 180 metres and 120 metres in length are running towards each other on parallel tracks with speeds 65 km/hr and 55 km/hr. In how many seconds will they be clear of each other from the moment they meet?
A)   6   B)   9   C)   12   D)   15

70. Vivek travels from his home to his friend's home at a speed of 60 km/hr and returns home along the same route at a speed of 30 km/hr. What is the average speed during the whole journey?
A)   40 km/hr   B)   45 km/hr   C)   50 km/hr   D)   55 km/hr

71. Find out the total number of surfaces of the solid in the given figure:

A)   21   B)   12   C)   15   D)   18

72. Which figure completes the statement?

A)   B)   C)   D)
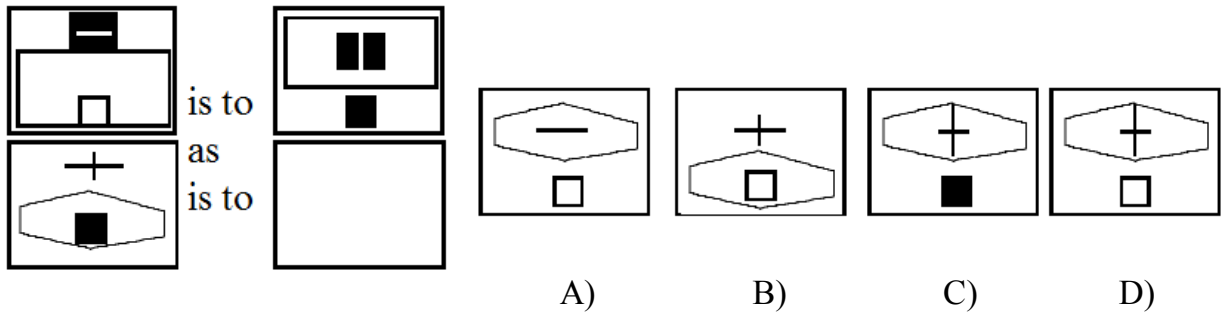
73. Which of the following diagrams represent the relationship among males, fathers and doctors?

A)   B)

C)   D)
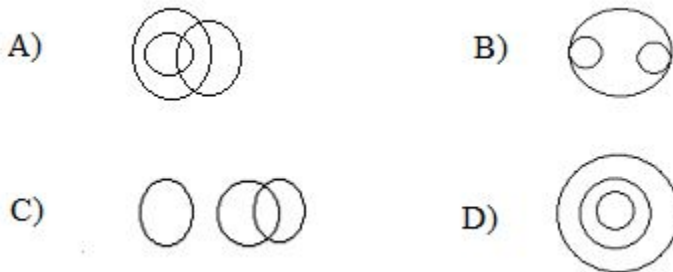
74. Which figure comes next?

A)   B)   C)   D)
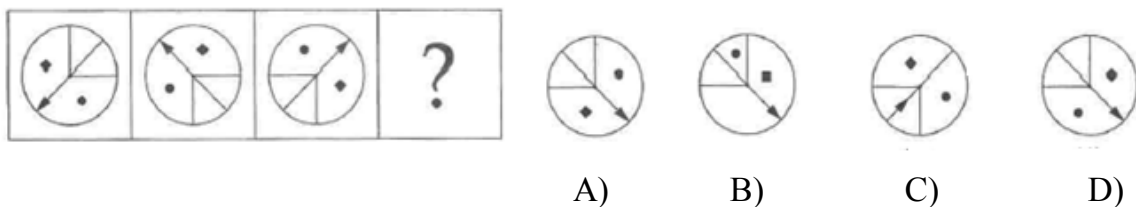
75. Volume in a design is the -----.
A)   Solidity   B)   Direction extension
C)   Extension of shape   D)   Both B and C

76. The ratio between the perimeter and the breadth of a rectangle is 5 : 1. If the area of the rectangle is 216 sq. cm, what is the length of the rectangle?
A)   15 cm   B)   18 cm   C)   21 cm   D)   20 cm

77. How many sides does a dodecahedron have?

A) 12 B) 14 C) 24 D) 18

78. What is the number which comes in place of '**?**'
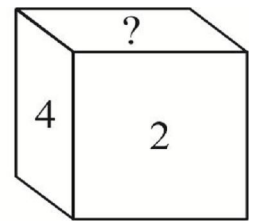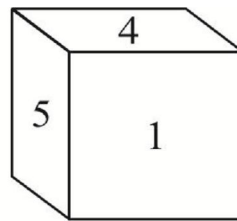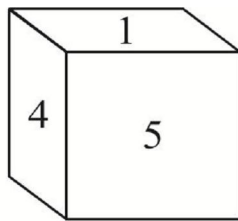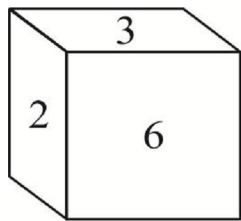
A) 8 B) 6 C) 3 D) 1

79. A hall is 15 m long and 12 m broad. If the sum of the areas of the floor and the ceiling is equal to the sum of the areas of four walls. What is the volume of the hall?

A) 1500 m^3 B) 3600 m^3 C) 1800 m^3 D) 1200 m^3

80. Which figure has the same top view as the problem figure given below?
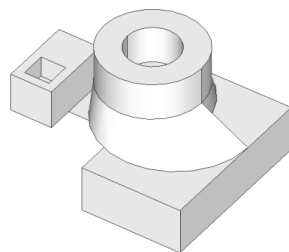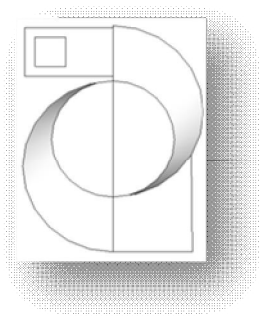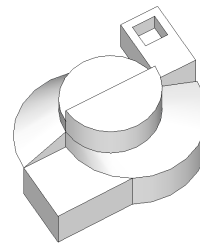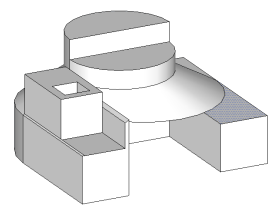
(1)   (2)   (3)

A) 1 B) 2 C) 3 D) None of these

81. Identify the correct view of the given object from the sides indicated by arrow.

23015 A
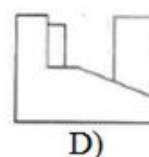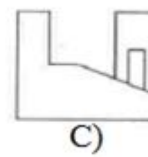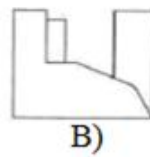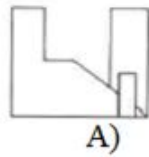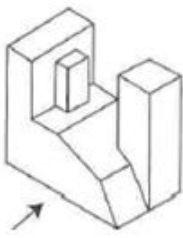
82 A cube of side 4 cm is painted black on the pair of one opposite surfaces, blue on the pair of another opposite surfaces and red on the remaining pair of opposite surfaces. The cube is now divided into smaller cubes of equal side of 1cm each. How many smaller cubes having less than 2 sides painted are there?
   A) 15   B) 18   C) 32   D) 24

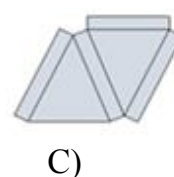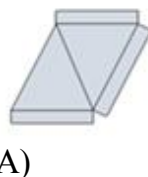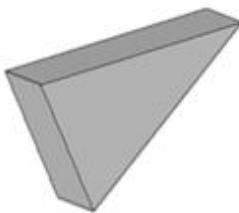83. Identify the correct view of the given object from the sides indicated by arrow.
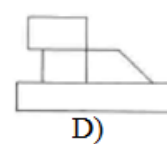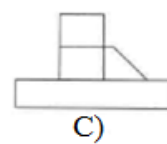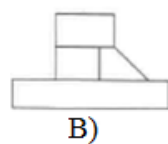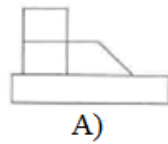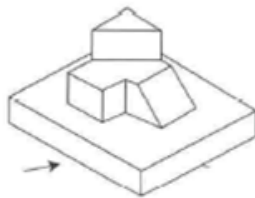
84. Identify the correct shapes from the given figures from which the problem figure can be developed.
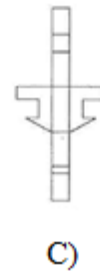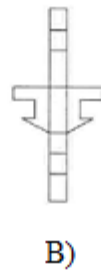
85. A standard Rubik's cube consists of ---- number of colours.
   A) 4   B) 8   C) 5   D) 6

86. Identify the correct shapes from the given figures from which the problem figure can be developed.
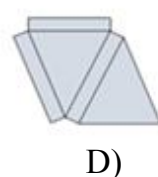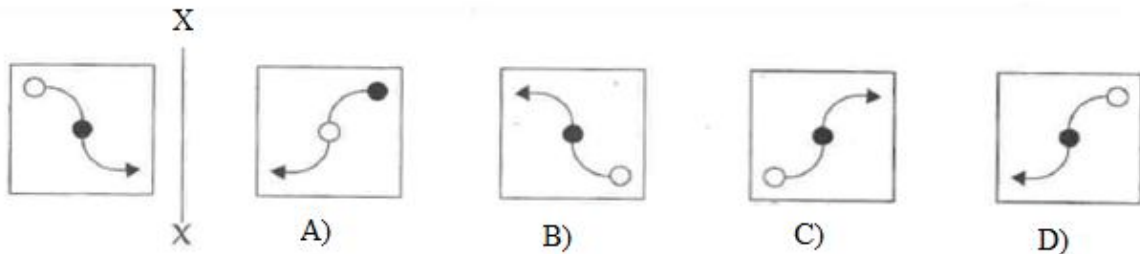

87. Find the exact mirror image of the question figures with respect to the
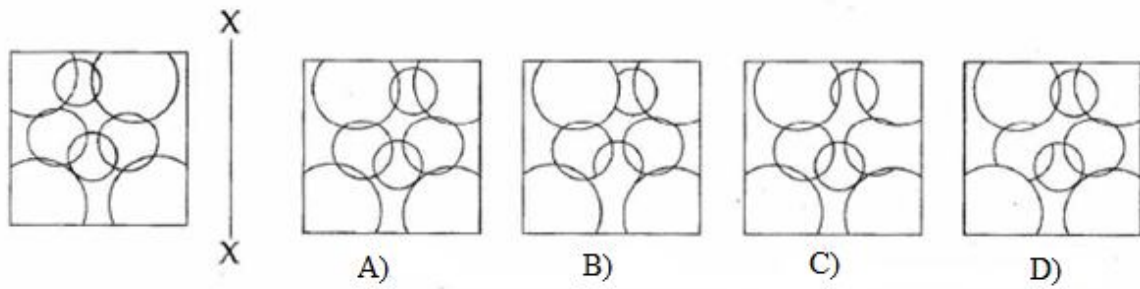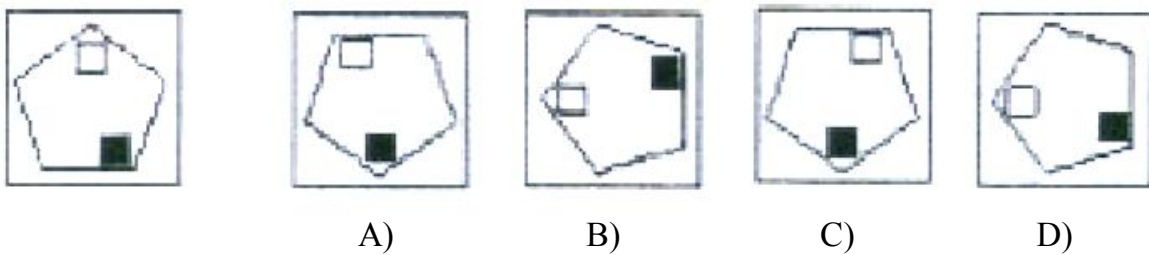
X-X axis shown.

88. ----- is **not** related to image format.
    A) tiff   B) jpeg   C) bmp   D) wav

89. Find the exact mirror image of the question figures with respect to the X-X axis shown.

90. Gesture drawing is -----.
    A) Landscape   B) Movement of action
    C) Geometric drawing   D) All the above

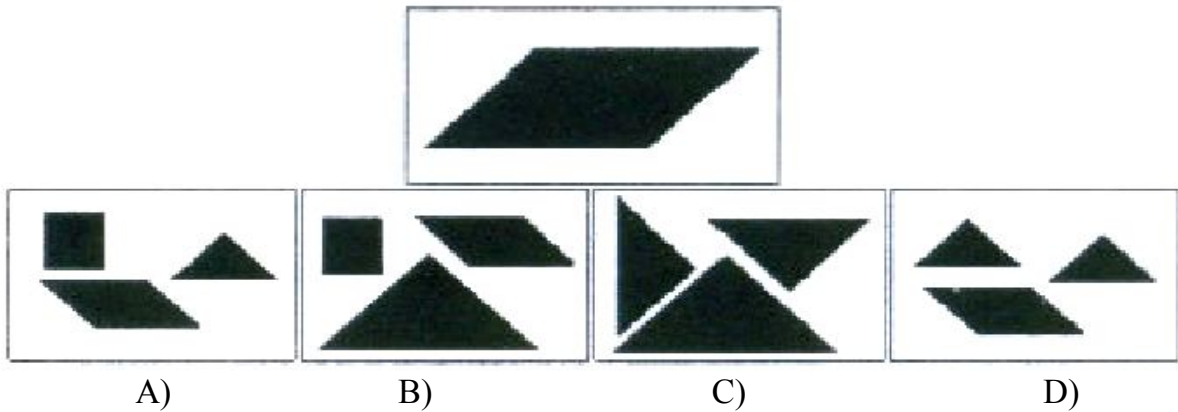91. Which figure is identical to the first?

92. The arrangement of visual element:
    A) Harmony   B) Contrast   C) Unity   D) Composition

93. Which figure completes the statement?
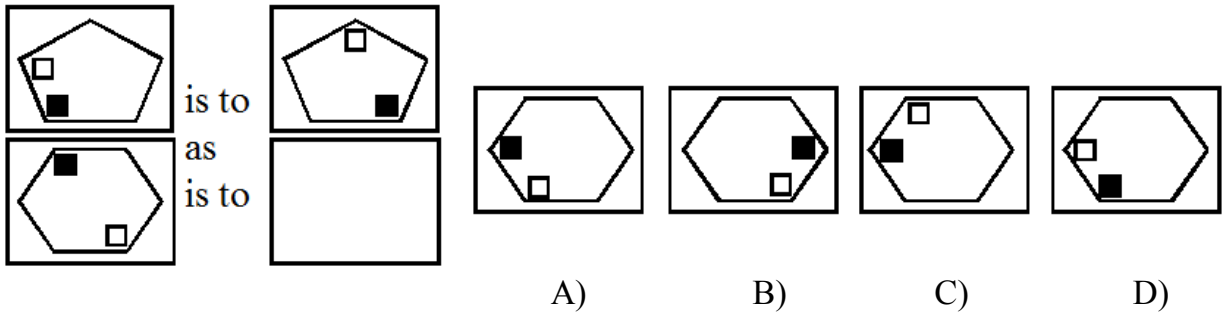
94. Forms repeated in a design:

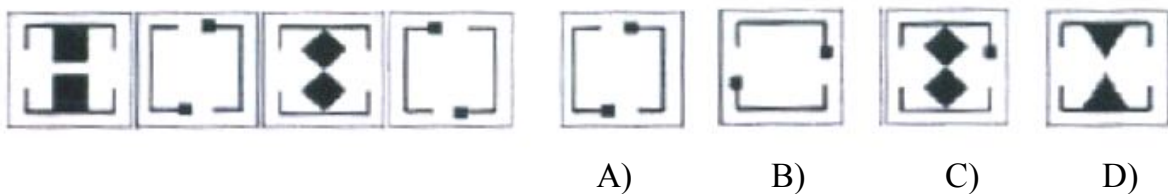   A)   Pattern   B)   Unity   C)   Illustration   D)   Variety

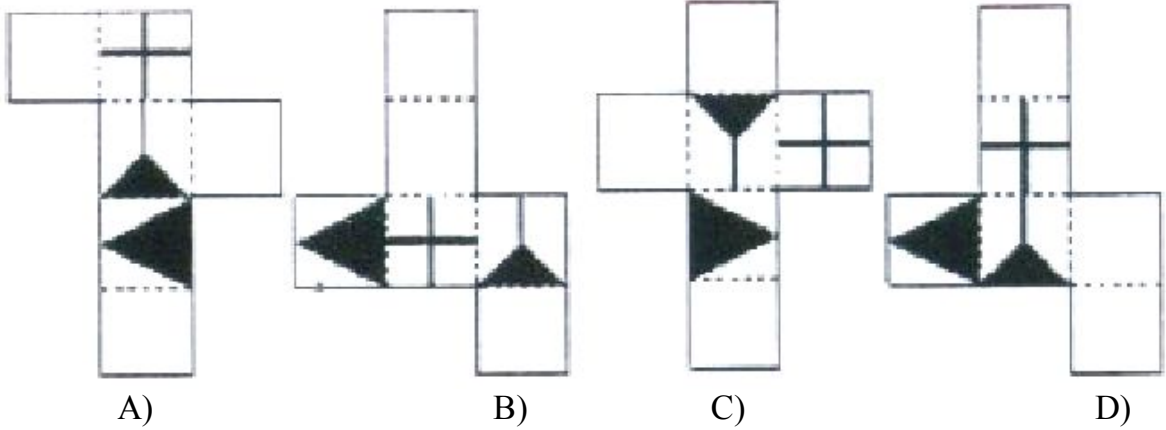95. Which group of shapes can be assembled to make the shape shown?

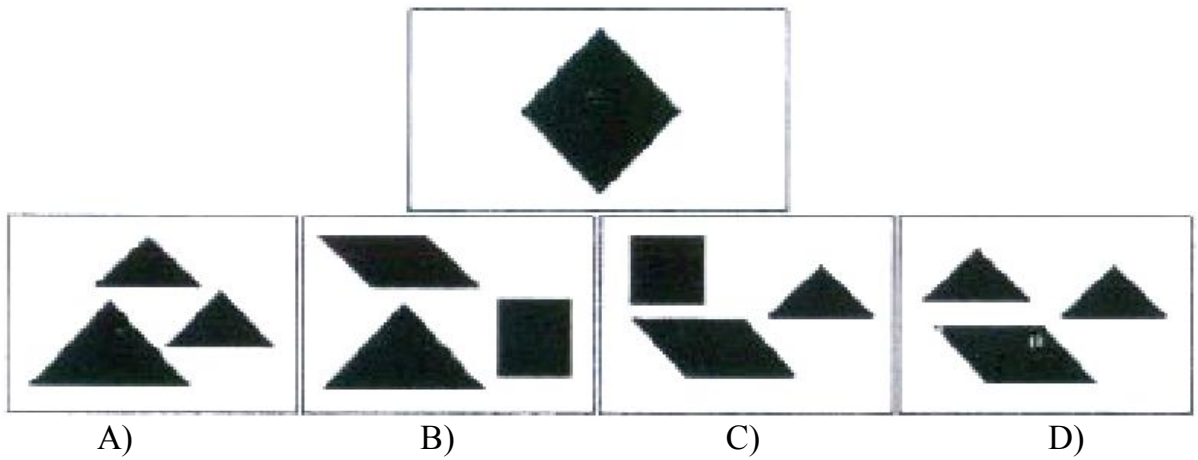96. Identify the **incorrect** logo:

97. Which figure is next in the sequence?

98. Which pattern can be folded to make the cube shown?

A)   B)   C)   D)

99. Which group of shapes can be assembled to make the shape shown?

A)   B)   C)   D)

100. Identify the **mismatch** among the following:

Tesla   Mahindra   Skoda   Renault

A)   B)   C)   D)

****